State of Alaska
Department of Natural Resources
Division of Forestry
Coastal Region
Mat-Su Area

Forest Land Use Plan/Preliminary Decision
For the

HOUSTON
Zero Lake Road
Timber Sales

SC-2139M-3A & 3B
and
SC-2172M-1A & 2D

Winter 2009

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I. INTRODUCTION:

A. Purpose

The purpose of this Forest Land Use Plan (FLUP) is to provide sufficient information for reviewers to ensure that the best interest of the state will be served by the Department of Natural Resources (DNR) Division of Forestry (DOF), Coastal Region, Mat-Su Area offering an estimated total gross volume of **1,200 cords** (1,000 cunits) of **birch firewood** and **142 thousand board feet** (MBF) of **spruce saw logs** for sale. (A cunit equals 100 cubic feet of solid wood and 1.1 cords). This volume is configured in four harvest units that compose a total of 166 acres. Each harvest unit may be sold as a separate timber sale or in combination with each other under the provisions of AS 38.05.120 [Disposal Procedure] depending on market conditions. If no qualified bid is received within the time specified for a sale, the DOF may offer the sale(s) for purchase over-the-counter for not less than the advertised minimum bid without further notice. No new roads to the timber sales will be required for construction. Each unit is accessible by existing winter roads that were previously constructed. The contract period of each timber sale will last three years.

Timber sale SC-2171M is east of the proposed timber sales SC-2172M-1A and 2D in Section 11. The proposed timber sales are 330' or more from the ongoing sale (SC-2171M) in Section 11. The proposed timber sales in Section 10 are a re-cut of a previous timber sale that was selectively harvested for prime spruce logs only. Since the current market allows greater utilization of all species a seed tree cut and scarification to allow germination of natural regeneration is being employed.

The public is invited to comment on this Forest Land Use Plan and these timber sale units with regards to the best interest finding (AS 38.05.035, Powers and Duties of the Director). Comments should be mailed to the Area Forester, Alaska Division of Forestry, 101 Airport Road, Palmer, Alaska, 99645. Comments must be received at the Division of Forestry office no later than **April 21, 2009** in order to be considered in the final decision of whether the sale will be held in whole or in part. To be eligible to appeal the final decision a person must have provided written comment by **April 21, 2009**.

B. Five-Year Sale Schedule

The footprint that this proposed sale occupies has been shown as a potential sale area in the current Five-Year Schedule of Timber Sales (FYSTS) for Calendar Years 2007-2011.

C. Location

The legal description of this proposed action is as follows: Sections 3 and 10, of T18N, R3W, in the Seward Meridian (SM), located on the United States Geological Survey (USGS) 1:63,360 map, Anchorage C-8.

Houston is the nearest community, and is located approximately 4 miles southwest of the timber sale area. The units are accessed by driving east on the Zero Lake Road from Mile Post 59.2 of the Parks Highway, proceeding approximately 3 & 4 miles on Zero Lake Road to the seasonal winter road access points.

The regional Native Corporation is Cook Inlet Regional Inc. The Knik-Atnu and the Montana Creek native village corporations are the nearest Native groups to the timber sale area.

D. Title, Classification and Other Active or Pending Interests

The proposed timber sale areas are within Subunits 5A (Section 3, T18N, R3W, SM), 3A (Section 10, T18N, R3W, SM), of the Deception Creek Land Use Plan (DCLUP), and are also within the Willow Sub-basin Planning Area. These proposed sales are all subject to the Susitna Forestry Guidelines (*SFG*).

State land within Units 3A, and 5A are classified Resource Management in the DCLUP. Primary allowed uses within the DCLUP include management for *Forestry, Wildlife Habitat, and Watershed.* These land use designations and the management intent specifically allow timber harvest and multiple-use forest management. These lands are planned for retention by the state with continued state ownership specifically allowing forest management with timber harvest, wildlife habitat enhancement, and watershed protection. The classified State lands described within this FLUP are NOT designated for any kind of land sales in the foreseeable future.

The area plans and *SFG* listed above were adopted based on input from agencies, organizations, local communities, and included public meetings and a public comment period. By law, State forest land must provide for multiple uses (AS 41.17.060 and 38.04.065).

E. Planning Framework

The decision to offer the Houston Timber Sales was based on a long series of planning decisions, made with public input every step of the way. This document, the Forest Land Use Plan for these timber sales, is one of the final steps in this long planning process. The planning for where timber harvest is appropriate, and where it is not appropriate, is done at a much broader scale than the FLUP. The framework for how management decisions are made for timber sales in the Susitna Valley is as follows:

1. Area plans and land use plans (in this case, the *Susitna Area Plan and the Deception Creek Land Use Plan*) determine where timber harvesting is allowed.
2. The *Susitna Forestry Guidelines* and the Forest Resources and Practices Act and Regulations determine how timber will be managed within areas where harvesting is allowed by the Area Plan.
3. The Five-Year Schedule of Timber Sales (FYSTS) proposes when timber sales will be offered, and approximately where and how big each sale will be.
4. A Forest Land Use Plan (FLUP) is required and written for each sale or group of sales in a specific sale area, and contains more detailed decisions.

1. The *Susitna Area Plan* (June 1985), the *Willow Sub-Basin Plan* (October 1982), and

the *Deception Creek Land Use Plan* (October 1989) (DCLUP) are the broad-scale analysis of land uses appropriate on different areas of state land in the Susitna Valley and specifically within the DCLUP where the proposed harvest units are described herein. The *Susitna Area Plan* covers approximately 15.8 million acres in South-central Alaska, and was finished after the *Willow Sub-Basin Plan.* Further refinement occurred with the writing, review and completion of the DCLUP in 1989 where more specificity was added. The DCLUP unit consists of approximately 65,700 acres of patented state land located in the Matanuska Susitna Borough near Willow, east of the Parks Highway and west of the Hatcher Pass management unit. Most of the area will allow timber harvest that where feasible and prudent, will be done in a manner that enhances wildlife habitat. These individual planning processes were the means to openly review resource information and public concerns prior to making long-range decisions about public land management. The planning processes determined how the complete range of uses would be accommodated in the Susitna Area, and specifically in the Deception Creek Area, and include opportunities for forestry as well as protecting fish and wildlife habitat, opportunities for recreation, and the whole range of other uses.

Over ninety percent of the public lands in the Willow Sub-Basin planning area are retained in public ownership and managed for multiple use, including protection of fish and wildlife habitat and provisions for hunting, fishing, and other wildlife use opportunities. Forestry is an allowed use on only 15% of the entire Willow Sub-basin Planning Area. Forestry including commercial and personal use timber harvest and wildlife habitat enhancement is an allowed use on a much smaller part of the entire planning area: only 464,000 acres of the total 15.8 million acres (approximately 2.9 % of the State land in this entire planning area).

2. Forestry activities in this proposed timber sale area are also governed by the *Susitna Forestry Guidelines* (SFG) (December 1991), a document developed through an additional broad-scale public planning process. The *SFG* establishes specific guidelines for forestry lands in the Susitna Valley. It was designed to provide a balanced, sustained yield of public benefits, including providing wood for personal and commercial use, supporting tourism and recreation opportunities, protecting and enhancing fish and wildlife habitat, and protecting air, land and water quality. The *SFG* states that "to provide wood, fish, game, recreation, and other benefits, state-owned forest lands will include both natural ecosystems and actively-managed forests."

The *SFG* provides for harvest, while at the same time protecting other resources and uses. For example, even in lands classified to allow forestry activities, timber harvest is prohibited near lakes and most wetlands and streams, along the Iditarod Trail, near bald eagle nesting sites, and recreation sites.

The proposed timber sale units described in this FLUP are within *SFG* units DC 5a & DC 5b. The interim forestry guidelines in the DCLUP are replaced by the SFG and are specific to the DCLUP Area, including the following guidelines that apply specific to the Deception Creek planning area.

Peregrine Falcon Nests. Nests shall be protected as required by federal law. There will be no disturbance of natural vegetation within a 330' radius of any peregrine falcon nesting site. No peregrine falcon nests are known near the proposed units.

Unique Habitat or Plant Communities. Timber harvest shall be restricted in certain limited areas with unusual habitats. DNR will consult with ADFG and the US Fish and Wildlife Service prior to resource development in the area of rare or endangered species if any are identified. No unique habitats or plant communities were identified within the proposed harvest unit areas.

Slope Restrictions. Special consideration will be given to any timber harvest or habitat enhancement projects on slopes exceeding 40%. Mechanical scarification is discouraged where slope is greater than 40%.

Riparian Management. The no-harvest zone on Deception Creek will be 200' on either side of the creek consistent with the Deception Creek Management Plan Guidelines, "Lakeshores and Stream Corridors." See *Rivers, Streams, and Lake:* guidelines for shoreline management zones on other water bodies. The proposed harvest units are more than one mile from Deception Creek.

Reforestation. All harvested units shall be reforested to the original forest type.

Seed trees. The Division of Forestry identifies the amount and location of birch seed trees left standing in timber cuts to produce seeds for birch reproduction. Several birch trees/acre will be left standing to ensure seed for regeneration that meets standards set forth in AS 41.17.060 and 11 AAC 95.170.

3. Next, the Division of Forestry prepares a Five-Year Schedule of Timber Sales (FYSTS) every other year. The FYSTS give the public, timber industry, and other agencies an overview of the Division's plans for timber sales. They summarize information on proposed timber harvest areas, timber sale access, and reforestation plans. FYSTS are subject to public and agency review. The review helps identify issues that must be addressed in detailed timber sale planning. After review and revision, the DNR uses the schedules to decide how and where to proceed with timber sale planning.

The sale area was included in the DOF's Mat-Su Area and Kenai-Kodiak Area Five Year Schedule of Timber Sales, 2007-2011. The Schedule was published in July 2007 and noticed for public comment in the *Frontiersman* and the *Anchorage Daily News* on July 17, 2007. The notice was posted in all Mat-Su post offices and on the State of Alaska Public Notice and the DOF web sites. The notice was also sent to agencies, Mat-Su community councils, tribal councils, Native corporations, planning commissions, Legislative offices, conservation groups, small mill operators, timber industry

representatives, and private citizens. The schedule and maps are available for download from the DOF's web site. Public comments were accepted until August 16, 2007, but comments received after August 16, were also kept in the file. Thirty-three comments were received. These public comments were used to identify issues that would be addressed in the Forest Land Use Plans.

4. Finally, this document, the Forest Land Use Plan (FLUP) is prepared. The FLUP contains detailed information on the location, access, harvest methods, duration, and proposed reforestation for specific harvest areas. The public is asked to comment at this stage, as well. By getting the best available data, combined with a series of public processes that helps us gather information from the public and other agencies, we make well-informed decisions about uses of resources on state land.

F. Objectives

1. **Meet mandate.** To follow one of DNR's constitutional mandates to encourage the development of the state's renewable resources, making them available for maximum use consistent with the public interest. Sustain and promote a healthy**,** long-term timber industry in the State, through providing a secure source of timber for harvest that produces raw materials for local manufacturing plants when practical while protecting and enhancing other resources such as fish and wildlife habitat.

2. **Economic benefits.** To help the economy of the State and Borough by providing royalties to the state from stumpage receipts, and adding to the State's economy through wages, purchases, employment and business

3. **Proactive forest management.** To improve forest growth, regeneration, health, and vigor for future generations by harvesting and replacing selected mature birch stands with new healthy stands of forest re-growth, while also protecting and maintaining other resource values. The actions authorized under this decision will adhere to multiple-use management.

4. **Habitat objectives.** This project is specifically designed to provide a mosaic of forest stand ages for a diverse variety of wildlife species that live in the area, including some early-successional stages of forest growth in those areas where it is allowed, through the active use and management of forest timber harvest resources. The Governor and Legislature have proposed that all timber sales on state lands be implemented with an emphasis on regeneration to provide short-term moose browse, improve moose and wildlife habitat (as required by the DCLUP), and improve wildlife habitat that will manage fish and game for abundance for hunters and viewing.

5. **Public safety objectives.** The Moose Collision Mitigation Committee formed through the Governor's office to reduce vehicle/moose collisions and promote

public safety proposed that all timber sales where and when possible be situated to help divert moose off of highways and transportation corridors by emphasizing forest regeneration to provide short-term moose browse away from road corridors. Successful regeneration of timber sale units is anticipated to help divert moose away from the transportation corridors including the Parks Highway, help save lives, and help reduce property damage caused by moose/vehicle collisions.

II. LEGAL AUTHORITY

The Division is taking this action under the authority of AS 38.05.035(e) (Best Interest Finding); AS 38.05.110-120; 11 AAC 71 (Timber Sale Statutes and Regulations); AS 41.17.010-.950 and 11 AAC 95 (Forest Resources and Practices Statutes and Regulations).

III. ADMINISTRATIVE RECORD

The DOF will maintain an administrative record regarding the decision of whether or not to offer timber within the 2009 Houston Zero Lake Road 2009 Timber Sales Area. This record will be maintained at the Mat-Su Area Office. Timber sales and/or timber sale units will be known by their respective numbersSC-2139M-3A, SC-2139M-3B, SC-2172M-1A, and SC-2172M-2D. Each unit and location is clearly depicted on the attached timber sale unit map.

IV. DISCUSSION OF ISSUES

A. Physical characteristics of the sale area

1. Topography

The proposed sales are similarly situated on uplands approximately 450 to 600 feet above sea level. Terrain is level to rolling with shallow ridges. There are short pitches (less than 100 feet in length) of 40-50 percent slopes. There are no known natural hazards occurring in this area.

2. Soils.

Soils in the Zero Lake Road Area are described in the Soil Survey of Matanuska-Susitna Valley Area, Alaska, 1998. Within the proposed harvest units the soils generally consist of the well drained *Estelle, undulating to hilly-Disappoint complex* and the *Yohn-Delyndia complex, hilly* soils. Included throughout these moderately shallow (average 16 inches deep over cobbles and stone), well drained upland soils, are pockets areas of poorly drained soils that consist of flat or concave Histosols and depressional Cryaquepts, formed on nearly flat terrain. These cooler, wet soils with black spruce and alder growing on them generally separate timber sale units, keep unit size small, and inhibit all season access to timber harvesting and complicate site preparation activities due to suitable road surfaces. Timber hauling is most affected (winter roads only) by interspersed poorly drained Histosols and Cryaquepts.

Harvest units may support summer logging operations with dry season conditions as well as during winter frost and snow conditions. Overall the harvest sites have a low

potential for soil compaction, erosion, and mass wasting. Winter logging and access is proposed for log truck hauling due to soil characteristics that require winter road access across the poorly drained Histosol – Cryaquepts soil complex. Early summer and after leaf fall in the autumn is suggested for meeting scarification requirements, and these times of the year will be targeted for site preparation using scarification to address reforestation issues and statutory requirements for reforestation.

3. Water Bodies, Fisheries, and Water Quality.
The *Atlas to the Catalog of Waters Important for Spawning, Rearing, and Migration of Anadromous Fishes* was used as a reference guide to indicate the potential for fish habitat issues in the timber sale area. No cataloged streams are within ¼ mile of any of the proposed units. All small creeks and water bodies within sections 3 and 10 have been previously inspected by personnel from the Dept. of Fish & Game, Division of Habitat. The water bodies adjacent to these timber sales within sections 3 and 10 have been determined to be non-fish bearing.

The most recent field inspection by the Division of Forestry (DOF), and the DNR Office of Habitat Management and Permitting (OHMP) inspected the small stream and water bodies adjacent to the two proposed timber sale harvest units in Section 3. This small stream between the two proposed harvest units was determined to be a non-fish bearing water body by the OHMP. These particular small creeks do not appear on any map or catalog.

Regardless, a "no cut" stream management reserve area of at least 50 feet was marked in the field in both sides of the small non-fish bearing stream in section 3 using "timber sale boundary" flagging. Crossings of the small non-fish bearing creek will be designated in the field and made in winter with a combination of snow pack and frozen soils to protect creek channel from logging and hauling. Logging and hauling will take place only after the soil is suitably frozen and or snow covered to further protect riparian habitat and sites adjacent to the water body from potential effects of siltation. Reserve areas meet the requirements of the *SFG* and *the Alaska Forest Resources and Practices Regulations (FRPA).*

The small stream in section 10 is buffered from proposed units by several hundred feet in all portions of the unit boundaries adjacent to the stream. This small stream appears to be connected to anadromous waters on the *Atlas to the Catalog of Waters Important for Spawning, Rearing and Migration of Anadramous Fishes* and appears to be connected to the Little Susitna river. The stream number appears to be 247-41-10100-2271. Actual conductivity is not known. No analysis was undertaken by the OHMP or (in 2000) by the Habitat Division because of the distance separating this small stream. Proposed units are clearly marked with pink "timber sale boundary" flagging. As required by the FRPA the Department of Fish & Game, Habitat Division,

has determined that the retention "no-cut" area is adequate for protection of this water body.

All the proposed harvest units listed above will be winter logged during times of good ground support (frozen or covered with snow). Harvest operations are anticipated to have minimal impact on water quality due to the location of harvest units and the topography. Topography within harvest units is generally flat with short slope pitches of less than 40%. Winter logging will minimize soil disturbance and potential for erosion along log hauling access routes (the established winter road).

Scarification to expose mineral soil will be contractually required in the timber sale units to facilitate regeneration and FRPA compliant reforestation requirements. This will be accomplished on frost free ground using a wide track excavator or dozer as appropriate to access harvest units. The sale area presents no obstacles that would prevent implementation of the best management practices of the FRPA for maintaining water quality of drainages in the sale area during proposed operations. The DOF will mandate best management practices of the Alaska Forest Resources & Practices Act (FRPA) to maintain water quality in and adjacent to the timber sale areas.

Information from field inspections, compliance monitoring, and the State ACWA (Alaska Clean Water Actions) database indicate that the AFRPA is effective in protecting water quality. The annual report from the Department of Environmental Conservation (DEC) on the effectiveness of FRPA concluded that, "when properly implemented, the BMPs are effective at protecting water quality." No streams have been identified or listed for violation of water quality standards as a result of forest operations subject to the AFRPA best management practices.

4. Stand Conditions. Both harvest units within **Section 3** consist of birch trees 70 to 100 + years of age, with scattered uneven-aged white spruce trees varying in age from seedlings to mature trees approximately 120 years of age. A previous spruce harvest occurred in both units about 15 years ago. Older growth birch is exhibiting conk, fungus, frost cracks, top die-back and general decline in health. Scattered spots within both of proposed units appear to have burned approximately 70 years ago and have birch that are pole sized 6" to 9" in diameter-at-breast-height (DBH). The estimated average DBH of the older birch trees are ten inches and the estimated average tree height is 55 feet tall. The average birch volume/acre in the proposed units of **Section 3** is consists of approximately **7 cords/acre** and **spruce volumes** in both average approximately **1,500 board feet/acre.**

Both units proposed within **Section 10** were previously harvested for high grade spruce and birch. The units remain forested with over mature birch and scattered poor quality spruce. **Birch** in section 10 average approximately 12" dbh and 60 feet tall with approximately **8 cords/acre**. Little spruce is left in either unit.

All the proposed units in Sections 3 & 10 have a partially closed over story canopy with openings created by birch mortality and the previous spruce harvest. Experience has shown that additional birch tree growth will not produce a useful net increase in volume, and that the volume and number of birch per acre will continue to decline in this partially cut over stand of over mature birch.

Four decay causing pathogens have been identified in the older growth paper birch: *Phellimus ignirius, Poria obliqua, Armillaria* spp., *and Pholiota* spp. Surveys of these pathogens were conducted in South-central Alaska in 1996. In general, the amount of stem, butt, and root decay was low in stands less than 50 years of age. Moderate decay was apparent in approximately half the trees in stands over 70 years of age, while nearly every tree contained extensive decay in stands over 100 years of age.

The under-story vegetation in all 4 stands of both sections is composed mainly of dwarf dogwood (bunch berry), club moss, high and low bush cranberry, horse tail (equisetum), blue-joint grass, menzesia, alder, willow, rose, blue berry, elder berry, and devils club.

5. Silvics of birch trees. White or Paper Birch (*Betula papyrifera*) is a medium-sized, fast-growing tree that grows best on well-drained, cool, moist soils (Safford, 1990). Birch can grow on drier or wetter sites but will not achieve the growth rates found on more optimal sites. Birch is considered a short-lived tree, and matures at 60 to 70 years old. It rarely lives longer than 140 to 200 years. Birch commonly colonizes disturbed sites found after logging, fires, and windstorms. Scarification techniques are used to mimic or augment these disturbances and ensure adequate stocking levels to meet management and regulatory goals.

Paper birch normally produces seed at about age 15, with the optimum seed producing age between 40 to 70 years old (Safford, 1990). Birches produce seed every year and produce abundant seed crops every two to three years. Seeds are light, small and winged and average 1.4 million seeds per pound (Safford, 1990). Because of their size, seeds are easily dispersed by the wind and across the snow. Seeds are dispersed throughout the fall and winter with the majority of seed falling during the fall months.

Mineral soil provides the best moisture and temperature medium for the establishment and early growth of seedlings (Safford, 1983). Provided that the organic material is preserved, treatments such as scarification, disking, and light burning help provide the best seedbeds for establishing white birch (Safford, 1983).

In Zasada's (1978) study of Alaskan birch regeneration three years after clear cutting, 100% of the scarified plots measured had seedlings while only 30% of the unscarified sites had seedlings. The seedlings in the scarified sites averaged 11 inches in height while the untreated sites averaged 2 inches (Zasada, 1977). The data is not consistent with other findings in the northeast, which showed birch germinated better on scarified

sites but grew better on the untreated sites. The difference may be due to competition of herbaceous and other vegetation on the untreated sites in Alaska (Safford, 1990).

Blue joint reed grass (*Calamagrostis canadensis*) in South-central Alaska is a serious competitor of both spruce and birch regeneration. Grass rhizomes and seeds quickly colonize sites. Grass robs seedlings of needed nutrients and light. Winter snows will often flatten heavy growths of grass, and in so doing, break, bend, and smother seedlings in direct competition with the grass. Scarification retards grass colonization and allows the seedlings to become established and compete with the grass.

Collins, in his 1996 study of 96 selectively cut and clear-cut sites, found that clear cuts were much more successful than selectively harvested timber in limiting the growth of blue joint reed grass. Grass cover was greatly increased in selectively cut sites, which limited hardwood growth to areas where the over story was relatively open and mineral soil was present, for example, upturned root wads or haul roads. Collins' survey found that complete or nearly complete over story removal, followed by scarification, were most favorable to the establishment of an early successional hardwood forest with tree species that include birch, aspen, balsam poplar, and black cottonwood.

6. **Silvics of White Spruce Trees** White spruce *(Picea glauca)* in the middle and lower portions of the Matanuska and Susitna river valleys grow on a variety of sites but most productively on moderately drained uplands and well-drained river bottoms. Productive soils tend to be cool, and moist, with little or no permafrost. White spruce in the Mat-Su area of South-central Alaska grow in mixed stand associations of spruce and hardwoods including birch, aspen, balsam poplar, and black cottonwood.

Since the turn of the 20th century, human activity has become increasingly prevalent. The wildfire cycle as a result, is shorter than the natural fire regime of 200 to 300 year intervals. Fires caused by homesteading, mining, road, and rail-road development have created a forest mix of conifer/spruce in association with hardwood/birch. Mature stands of mixed birch /spruce, range 100 to 150 years of age. In locations relatively free of fire, white spruce has been occasionally encountered exceeding 200 years of age in the Mat-Su.

Typically, spruce regenerates after natural disturbance including fire, and flooding. These large-scale disturbances expose mineral soil that allows seed germination, and suppresses competing vegetation allowing seedlings freedom to grow. White spruce is moderately shade tolerant, and will grow, if not prosper, beneath an over story of faster growing birch. When the relatively short-lived birch stand begins to decline, past the age of 80 years, spruce will grow up beyond the birch, and dominate the timber stand.

Spruce initially suppressed by an over story of hardwoods, are generally also damaged or killed by frost cracking, wind throw, snow damage, root rots, and spruce beetle. Birch/spruce forests in the Mat-Su older than 125 years of age typically evidence spruce beetle mortality of 30% or more. Increased mortality accompanying older age forests only partially open them up to additional sunlight, and the forest floor becomes

more overgrown with grass, brush, and thick growths of moss. Very little regeneration is possible in thick accumulations of grass/moss vegetative matt. Occasionally spruce regeneration forms on rotting logs or after wind throw exposes mineral soil. This small amount of regeneration typically will not maintain the existing forest environment. In this environment, tree growth continues to decline, regeneration is sparse, soils become colder due to insulating accumulations of grass/moss, and tree stocking levels decline. Beyond 200 years of age, birch in the timber stand has all but died out, and spruce continues to be affected by all factors of mortality.

Shelter wood or seed tree timber harvests open the forest floor to sufficient sunlight promoting good spruce tree growth. Timber harvests that mimic natural regenerative processes such as wildfire or flooding, and are accompanied by timely site preparation in the form of scarification removing thick accumulations of vegetative mat to expose mineral soil while conserving the A soil horizon, have proven to be highly effective regenerating birch/spruce forests in South-central, and Interior Alaska (Densmore and Page 1992).

B. Current Land Use

Shallow gas lease permits have been issued for the general area around Houston and within the Township. Drilling or production is not scheduled in the near future, and forest management activity will be able to accommodate gas exploration and extraction should that occur in the area. No agricultural use or grazing is known to occur. Public lands nearby and adjacent to the proposed sale area are being managed for forestry and wildlife habitat. Personal use firewood cutting by permit is allowed in designated areas. Designated trails do not occur within or adjacent to the proposed timber sale units. Trails accessing the timber sale and within Section 3 were created by the Division of Forestry for forest management. Use is made of the area by hunters, ATV's, mushers and other recreationalists. The area is not unique to any form of land use in the Mat-Su.

C. Wildlife habitat

Numerous wildlife species are normally present within the planning area. Species include: moose, black and brown bear, spruce grouse, ruffed grouse, ptarmigan, fur-bearing animals, and various birds. The DOF has consulted with the local office of the Fish & Game, Division of Wildlife Conservation, and the Habitat Division to determine that no endangered, threatened, special or unique wildlife species or raptor nests are known to exist in the sale area. Unit size, shape, and position were designed to consider the wildlife needs common to the area. Silvicultural methods were designed to regenerate cut units to vigorously growing forests of birch and other hardwoods. Units comply with design considerations specified in the *SFG* for wildlife.

Based on existing U.S. Fish and Wildlife Service eagle nest tree maps and field observations, there are no known eagle nest trees in the sale area. Should an eagle nest tree be discovered in the sale area, DOF will notify the U.S. Fish and Wildlife Service with the location of the nest

tree. The eagle nest tree will be marked on the ground and a no less than 330-foot no-harvest radius will be established to protect the nest tree.

Birch and spruce snags will be retained to provide wildlife habitat for cavity-nesting birds, woodpeckers, small mammals, and other species requiring perching habitat. Residual shrub communities such as alder, devil's club, and vigorously growing young willow will be retained for wildlife habitat and protected from scarification. Spruce less than 10" dbh and birch less than 6" dbh will be retained for seed source and habitat.

Birch, the primary tree species present within this timber harvest, is important not only for the timber industry, but also as browse for mammals such as moose, and snowshoe hares. These herbivores are dependent on young hardwoods (early successional stage) for browsing the tips and buds. The browsers then in turn provide a major food source for predators (Collins, 1996). In South-central Alaska, the most significant factor promoting the maintenance of early successional vegetation has been human caused wildfire. As a result man caused fires beyond natural fire activity demanded active wildfire suppression the last several decades, and the resulting fire suppression has limited this mode of hardwood reproduction. Fire suppression has changed the diversity and productivity of the boreal habitats and their wildlife (Collins, 1996). Reduction of the over-story forest canopy and limiting ground cover by properly applied logging practices or land clearing can mimic the natural disturbances (wildfire) which stimulate hardwood reproduction and foster forest diversity.

Wildlife dependant on some portions of their habitat to include early successional stages of forest growth, such as moose and ruffed grouse, should benefit from the properly applied disturbance and subsequent browse regenerated. Buffers, timber retention zones, and leave areas should continue to support species adapted to the late successional forest types. Buffers may act as travel corridors and provide cover for wildlife (Collins, ADFG, pers. comm.).

It is generally accepted that the nutritious parts of principal tree or tall shrub species grow out of reach of moose within 20 years. If not topped by browsing or other mechanical means, the critical height may be reached at 9 or 10 years of age (Collins, 1996).

Scarification will be performed in each timber sale unit where birch is harvested, and will be required in each timber sale contract. Harvesting spruce 10" in DBH and larger, and birch over 6" in DBH (except designated seed trees) will open the forest floor to sufficient sunlight to promote seed germination and successful growth of hardwoods, including birch, aspen, and willow if the site is also scarified.

Scarification is a treatment done by dozers or excavators to expose mineral soil on approximately 50% of each harvested area of a unit so that natural hardwood tree seed fall may find a place to germinate and successfully grow beyond competing grass growth encroachment and other vegetation that would hinder forest re-establishment. (For more information about scarification, see the following sections of this document: A.5. Silvics of birch trees and J. Regeneration.) Moose browse should also be improved by regenerating hardwoods as a result of properly done mechanical scarification.

It is anticipated that timber harvest with appropriate site preparation and scarification will in the future regenerate each unit with new timber and accessible moose browse in the form of regenerating hardwood forest vegetation. Regenerating hardwoods will provide moose browse until the new growth of trees, grow up beyond the ability of moose to successfully reach and browse.

Timber sale units are separated by over 330 feet or more of a no-cut zone as required by the *SFG*. Units are designed and laid out with uneven edges to benefit wildlife, take into account topography and focus on merchantable timber. As mandated by the *Susitna Forestry Guidelines*, no harvest will take place within 100 feet of Class I and II wetlands (wetlands larger than 40 acres). The timber acreage harvested in the management block occupying any of the proposed harvest units is less than 40% of the original forested area, as required by the *SFG*.

Harvesting is not expected to cause significant negative impacts on wildlife populations in the area. There are extensive adjacent areas designated legislatively, which allow no timber harvest within the immediate area (Nancy Lake Recreation Area, Hatcher Pass).

Species of concern

DOF consulted the Alaska Division of Wildlife Conservation's endangered and threatened species list. The Division of Wildlife Conservation lists the following species as "species of special concern,":

Northern Goshawk
American and Arctic Peregrine Falcon
Spectacled Eider
Olive-sided Flycatcher
Gray-cheeked thrush
Townsend's warbler
Blackpoll warbler
Brown Bear on the Kenai Peninsula
Stellar's Eider
Aleutian Canada Goose
Stellar Sea Lion
Harbor seal
Beluga Whale Cook Inlet population
Bowhead whale
Sea Otters
Chinook salmon, Snake River population

Four "Species of Special Concern" have ranges which include the sale area. Peregrine Falcons nest throughout interior Alaska, especially on cliffs along rivers and near lakes. This sale area does not have optimal nesting sites and should not significantly impact peregrines. Should nests be found in the sale area, ADFG biologists will be advised, and DOF will implement any protective measures that may be required.

The Olive-sided Flycatcher also has a summer range overlapping the sale area. This migratory bird nests in coniferous forests and is associated with open areas within the forest including logged areas. Biologists are mostly concerned with the dwindling winter habitat in the Andean valleys of South America. The sale area is predominately a birch forest and would therefore not be prime habitat for these species and, if observed, would be incidental.

Like the flycatcher, the Gray-cheeked thrush and the Townsend's and Blackpoll warblers are migratory species commonly found in coniferous forests. The sale area is predominately a birch forest and would therefore not be prime habitat for these species.

Moose

Riparian areas found along Deception Creek and drainages flowing in to the Little Susitna River are used by moose especially as a wintering area. Moose move throughout the area at all times of the year and are especially attracted by hardwood regeneration created as a direct result of logging and scarification.

The *SFG* identifies moose winter concentration areas as important to consider when planning harvesting schedules, and states that ADFG must identify those areas before a timber sale is offered. Birch stands provide little thermal cover for moose, and older birch stands provide little browse. By scarifying the harvested sites and promoting birch regeneration, the timber harvest will provide the much-needed browse currently lacking in older stands. Spruce, both white and black, provide much better thermal cover. This cover is more likely found in riparian and wetland areas or buffers that will not be harvested. Wetland buffers also are a source of willow browse. The mosaic of regenerating birch browse, adjacent leave areas between harvest units, and the riparian and wetland buffers will create much better conditions for wintering moose than conditions that currently exist.

The Division of Wildlife Conservation has stated that a properly scarified timber sale will encourage the regeneration of moose browse, and should improve the quality of moose habitat in the area of harvest.

There is an increasing demand by local residents for improved wildlife habitat for hunting and subsistence activities. Creating habitat that draws moose away from public road systems and the Parks Highway corridor is a stated goal of the Moose Collision Mitigation Committee. This is a public safety effort to reduce moose/auto collisions and has been recognized by the Governors Office and the Legislature as a major safety concern in the Houston, Big Lake, and Willow Community areas. Hunting pressure in the immediate area may increase as a result of higher moose densities drawn away from populated areas and major road systems where they get killed by collisions with autos and the rail system. Added hunting pressure is not expected to be significant relative to the extent of hunting opportunity in the Valley. The Alaska Department of Fish and Game is responsible for setting hunting regulations, including restricting hunting areas.

D. Subsistence

The timber sale area has not been designated as a subsistence zone. However, the following subsistence uses may occur on lands in state ownership: fishing, trapping, hunting and gathering of berries. Timber harvesting is not anticipated to have significant deleterious effects on the above activities. These timber sale units were designed to regenerate new growths of sapling-sized hardwoods that should increase moose browse and diverse wildlife habitat. Although this is not a designated subsistence zone, moose are an important subsistence source of meat to many families in the area.

E. Recreation

Recreation uses within this area are limited by access. The area is not known to have unique tourism values. There are no aircraft access points within the proposed sale area. This area is used by ATV's, snowmobiles, and dog mushers. The forestry road (Zero Lake Road), and trail systems created by a history of logging in the Houston Timber Sale Area are used by hunters, hikers, dog mushers, snowmobiles, ATV's, berry pickers, and personal use wood-cutters. Harvest operations will be conducted to protect recreational values for future use. No designated trail systems within the Houston Timber Sale Area are within or adjacent to the proposed timber sale units.

F. Scenic resources

Visual impact from harvesting will not change as seen from existing all season portions of Zero Lake Road. Harvest units are more than ½ mile off the maintained sections of Zero Lake Road. The rolling nature of the topography will obscure all harvest activity from Zero Lake Road or other road systems.

Harvesting may be visible from the air. However, the harvest units are laid out with uneven edges to benefit wildlife and regeneration, and this will make them look more natural from the air. Unit shape should look very similar to forested muskeg areas.

G. Cultural resources

There are no known cultural or historic sites within the sale area. Areas identified as historic, archaeological, or paleontological sites are protected as outlined in the Area Plan. During the course of activities associated with timber harvesting, cultural and/or paleontological resources may be inadvertently discovered. Should such a discovery occur, the site shall be protected from any disturbance, and SHPO will be contacted immediately so that compliance with State laws governing cultural resources may begin.

Under the Alaska Historic Preservation Act (41.35.200), all burials on State land are protected. If burials or human remains are found, all land altering activities that would disturb the burial or remains shall cease and measures will be taken to protect it in place. The Office of History and Archaeology and a law enforcement officer will be notified immediately to ensure that proper procedures for dealing with human remains are followed.

H. Sustained yield and allowable cut

The Alaska Forest Resources and Practices Act [AS 41.17.060 (c)] and Article VIII Sec. 4 of the State Constitution require that State forest land be managed on a sustained yield basis. Sustained yield is defined in the Alaska Forest Resources and Practices Act (AS 41.17.950(15)):

> "Sustained Yield" means the achievement and maintenance in perpetuity of a high level of annual or regular periodic output of the various renewable resources of forest land and water without significant impairment of the productivity of the land and water, but does not require that timber be harvested in a non-declining yield basis over a rotation period.

The Annual Allowable Cut (AAC) is the amount that can be harvested from forest land managed for forestry purposes in a year under a sustained yield management. The AAC in the Mat-Su Area is based on a five year average as mandated by the *SFG*. This sale complies with sustained yield/allowable cut principles outlined in the Anchorage/Mat-Su Area Five-Year Schedule of Timber Sales for FY 2007 through 2011. The AAC for the Mat-Su area is approximately 1000 acres. The AAC will not be exceeded with this sale as defined by the *SFG* due to minimal harvest activity in the previous five years.

I. Regeneration

Successful natural forest regeneration of birch requires full sunlight to reach the forest floor. Birch seedlings establish themselves by seed fall on mineral soil and to a lesser degree by stump sprouting. Mineral soil is essential for birch seed germination, and seedling survival. Birch seed is available every year or two.

Birch stands generally regenerate after wildfire kills the over story of birch and spruce. Fire opens the site to nearly full sunlight, exposes mineral soil to seed fall from adjacent live birch, and allows birch stumps to sprout where fire has killed off the above ground tree but has not entirely killed the root system.

Regeneration of white spruce occurs only from seeds. White spruce trees generally produce some level of a seed crop every three to five years and large seed crops every five to seven years. White spruce seeds germinate best on mineral soil, but may also germinate on dead and down decaying trees, and on decaying stumps. Site scarification that exposes mineral soil and planting of white spruce seedlings is generally very successful at producing an even-aged stand of white spruce. However, birch may reseed naturally in the scarified and planted area, and may become the predominant forest stand tree for many years, since birch initially grows faster than white spruce. White spruce trees are shade tolerant and do not need full sunlight to grow. Over time, the combination of birch and spruce will result in the establishment and dominance of naturally occurring, uneven-aged white spruce trees in a stand. See section A.4 Silvics of birch trees, for more information on birch regeneration.

It is generally accepted that the nutritious parts of principal tree or tall shrub species grow out of reach of moose within 20 years. If not topped by browsing or other mechanical means, the critical height may be reached at 9 or 10 years of age (Collins, 1996). Because the Houston Timber Sale Area has had previous harvesting that is currently regenerating hardwoods including birch and willow there will be enough acreage to spread browsing throughout the area. This additional harvest (169 acres proposed) will likely help to spread browsing over more of the entire area and aid in the actual reforestation of the area back in to forest cover for the future. Certain areas have been over browsed due to infrequency of logging, a ten-year slump in the market demand for birch, and the small size of infrequent partial cutting that selected mainly for spruce. No problems with over browsing are anticipated after the application of scarification that produces prolific hardwood regeneration. Collins (1996) noted that the availability of browse may last for a shorter time if the tree's height growth is not retarded by browsing or other damage. He used the abandoned Point Mackenzie Agricultural Project as an example where the old fields reforested in hardwoods and produced excess browse relative to the moose population. The young hardwoods were lightly browsed and quickly outgrew the browse line. Collins and Schwartz, in their (1998) management recommendations, state that "to enhance early successional moose habitat in hardwood and spruce-hardwood stands in Alaska," increased regeneration of hardwood will "lessen the probability that individual hardwoods will be damaged or stunted by browsing."

Timber sale contracts will require site scarification to ensure adequate natural regeneration to meet the reforestation standards in the AFRPA (11 AAC 95.375 - .390). According to the *SFG*, mineral soil must be exposed on at least 50% of the harvested area. Areas should be scarified no later than two growing seasons following completion of harvest to minimize grass invasion. Mineral soil patches should be exposed uniformly over the harvested area to encourage uniform distribution of regeneration. Mineral soil patches should be as large as possible.

J. Harvest methods

A portion of these proposed harvest units were previously harvested utilizing a "partial cut", selectively harvesting some of the most mature white spruce. Previous harvesting occurred approximately 10 to 15 years ago. Partial cutting of mature spruce in portions of this currently proposed timber sale helped release residual spruce left in the stand and produced better spruce growth, but generally did nothing to improve over mature birch trees left in those areas and greatly enhanced grass growth which makes it even harder to regenerate the forest.

The currently proposed harvest units will utilize a **modified seed tree harvest system. S**pruce 10" DBH or larger and birch trees 6" DBH and larger would be cut and removed. The modified seed tree harvest system is the preferred harvest system for this sale because further selective harvest or partial cutting will not provide as positive an increase in all management values including future timber products, added moose browse production, or forest stand regeneration. Additional partial or selective cutting will at the current stage this forests stand development only enable further decline and mortality of a healthy and diverse birch – spruce

forest, and further promote competing grass growth competition that inhibits forest regeneration.

Approximately 10% of the harvest unit will be retained in smaller sized birch and spruce by the diameter restrictions. The goal in this harvest system is to retain **2-4** of the best mature trees/acre including dominant and co-dominants of both species left uncut for use as seed trees, wildlife habitat, and aesthetics. In addition to seed trees, units are less than 600 feet wide.

Birch will be sold by the cord (90 cubic fee of wood). Merchantability of all size classes of birch was determined by the DOF based on current market conditions for birch chips and firewood. The auction bid price is expected to be higher due to the increased demand for fire wood. Utilization of birch within this timber sale due to its location, and the current market demand, is expected to be for fuel wood, and saw timber. It is possible that a demand for chips or pellets may occur during the life of this timber sale.

1. Harvest units. The sale area in Section 3 consists of two (2) harvest units of **49** and **32** acres in size. Section 10 cutting units are **50** acres and **35 acres in size**. Units will be buffered between other cutting units (both past and proposed) with 330-foot no-cut areas as required by the *SFG*. Harvest methods will follow the guidelines in the *SFG* and the Forest Resources and Practices Act and Regulations. The larger birch snags and residual birch less than six inches diameter at breast height will not be cut whenever safety conditions allow. Residual trees should be protected from damage during harvest operations. Aspen and willow in the units will be cut incidental to the timber harvest to encourage prolific regeneration from root and stump sprouts for moose browse. Winter harvesting of the four harvest units using winter snow/ice roads will be required.

2. Falling. Hand falling using chain saw and or mechanical falling using feller bunchers will harvest timber in the units. Rubber tired and tracked grapple skidders, line skidders, delimbers, forwarders, and dozers will be employed to forward timber to landing areas to be trucked or for processing.

3. Slash. Limbs and tops will be severed and scattered to decompose in the units. If burning was utilized to dispose of slash, an open-burning permit may be required from DEC to ensure dispersal of airborne emissions. Slash accumulated from logging operations may be burned as proposed for disposal by the purchaser in the operating plan. The purchaser will be required to contact DEC to ascertain whether open burning permits are required.

4. Hours of operation. The timber sale contract will specify the "hours of operation" in the Operating Plan developed by the purchaser and DOF as may be applicable to current conditions in the area with regard to public safety.

5. Invasive species. Because harvesting will occur during the winter, when plants are covered with snow, there is a low likelihood of spreading invasive seeds from plants that are already present in the area. However, if timber harvest equipment will come from outside the Houston Timber Sale Area (HTSA) (and therefore would have the potential to spread seeds coming from outside the area) that equipment must be power-washed

to remove possible invasive species seeds before that piece of equipment is allowed on-site. The harvesting contractor will be required within the timber sale contract to have each off-site piece of logging equipment inspected by the DOF prior to moving the equipment in to the HTSA.

Scarification has a greater likelihood of transporting local invasive plants' seeds, especially if it is done in the summer. Scarification equipment will be power-washed before going on-site. In addition, if scarification is done in the summer, the area along the Zero Lake Road and the access logging roads will be checked before scarification equipment is brought into the timber harvest area to see if there is an infestation of invasive species along those access points at the entrance to the timber sale. The all season access along Zero Lake Road is more than one mile away from the timber sale, and there is little danger that invasive plant seed from the Parks Highway will be blown into the scarified areas.

Invasive weeds and plants are becoming an increasing problem year by year in the Mat-Su Valley. Some of these invasive plants have the potential to "take over" timber harvest areas, harvest units, and road sides, negating regeneration attempts after scarification. The following conditions are a requirement of this contract:

All heavy equipment used in road building, timber harvest, scarification, skidding, forwarding etc. including, dozers, road graders, excavators, backhoes, shovels, front end loaders, rubber tired skidders, cat-skidders, forwarders, delimbers, strokers, disc-trenchers, and mechanical harvesters are required to be pressure washed to remove all dirt/soil from them, their tracks, tires, undercarriages, beneath their skid pans etc., prior to entering the Houston/Zero Lake Road Timber Sale Area, at a location and in a manner approved by the State. The intent of this requirement is to remove soil and seeds of potentially invasive weed species that could impact reforestation efforts in the harvest units and along the road systems.
All operators, contractors, subcontractors using heavy equipment described above need to again pressure wash their equipment if for any reason it is removed from the timber sale and re-mobilized back in to the Houston Timber Sale Area from any other location upon which it was used. Pressure washing would not be required if the equipment left the timber sale solely for the purposes of maintenance to that individual piece of equipment.

6. Wood residue for personal use. Depending on the market for all species of harvested wood, personal use firewood cutting may be possible with access provided only in the winter during active operations on winter snow/ice roads.

K. Transportation

The winter road was previously designed and constructed to avoid sensitive vegetative cover types such as riparian zones, wetlands, ponds, and naturally occurring forest openings wherever practical. The OHMP in 2007 and the Habitat Division in 2000 was consulted on sale location and design. Stream crossings and infringement of the water body buffers were minimized to the extent necessary to access the adjacent timber. The road will be maintained to the standards set out in the AFRPA [11 AAC 95.290, Road Construction] and the *SFG* [p. 39, Road Construction]. Specific maintenance requirements for the road during timber harvest operations will be incorporated into the timber sale contract. The purchaser will be contractually responsible for entering into road maintenance agreements with State Forestry and the other contractors harvesting timber in the Houston Timber Sale Area as necessary to maintain the Zero Lake Road during harvest or hauling operations.

The Houston Timber Sale Area is utilized in season by ATVs, snowmobiles, dog mushers, and personal firewood cutters. People using the area generally park in pullouts along the main surface of Zero Lake Road. Using ATVs on state land does not require a permit; it is a generally allowed use, as long as the vehicles do not break through the vegetated mat or significantly rut the road surface making it costly or impossible to practice forestry operations including log hauling.

Access to the proposed harvest units and timber sale will be on a reopened winter road off Mile 3 (for Section 10) and Mile 4 (for Section 3) of Zero Lake Road, and will follow the existing old winter road for approximately 1.0 mile to the timber sale units. During the winter timber harvest a snow bridge (previously approved) location in Section 3 will be utilized to cross a small non-fish creek to access the timber sale area. Snow bridges will melt out and the road will be closed to highway vehicles each spring according to Alaska Forest Resources and Practices standards (11 AAC 95.320). Typically on every state timber sale:

- Roads and ditches will be left in a condition that will control erosion.
- In areas accessible to highway vehicles, the road is blocked so that four-wheeled highway vehicles cannot easily pass the point of blockage.
- Bridges, culverts, and fills are removed from surface waters. (Not applicable here).

In addition to closing the road to highway vehicles, the DOF will specify in the contract that the entrance to the winter road from the end of the maintained Zero Lake Road be blocked off with logs, woody debris and root wads, to discourage vehicular use of the winter road. ATV use in the area is not projected to significantly change from the present use, because users have independently developed low use trail access to the area, and are not dependent on the roads to reach desired destinations.

Timber sale purchasers will be required to adhere to Mat-Su Borough trucking requirements and permits and all pertinent laws and regulations of the state and borough.

L. Erosion

There are typically two soil erosion concerns: surface erosion and mass wasting of soil and debris. Road construction and poor maintenance of roads primarily causes surface erosion. For

economic and environmental reasons, and as instructed in the Willow Sub Basin and Deception Creek Plans, the amount of road construction has been minimized, temporary winter roads are utilized, and all of the roads avoid steep slopes. The winter roads have been designed to follow the natural contours and benches in the area and are located on flat or moderate slopes of less than 25 percent. The roads were kept off steeper slopes and located on flat benches to not only minimize soil erosion from road construction, but also to minimize erosion due to logging. The location of the roads optimizes skidding distance and will provide adequate landing areas.

Ground slope within the units are less than 40%. The AFRPA slope stability standards and ground skidding BMPs will be adhered to at all times, as well as the BMPs for winter road construction. The AFRPA will be implemented to protect the current hydrologic pattern. This will include, but not be limited to vegetative or other stabilization of exposed soils and proper road maintenance and closure at the end of the season.

The state timber sale forester will ensure, with frequent field inspections, compliance with the timber sale contract and the AFRPA. Proper road maintenance on active, inactive, and closed roads will be followed. Finally, all roads will be closed out at the end of harvest operations as directed by the Division of Mining, Land and Water.

The other aspect of erosion (mass wasting and debris avalanches) normally occurs on slopes of more than 70 percent. The DOF has determined that the mass wasting potential is nonexistent because slopes are generally mild and timber harvest areas are not on slopes greater than 67 percent

M. Mining

There is little known current mining activity in this area. There are oil and gas leases within the Houston Timber Sale Area along Zero Lake Road, but they are not developed or active at this time. Other than providing access and sharing some of the same access roads, this sale will have no impact on the potential mining resources or mining activity in this area.

N. Materials

No rock materials will be required for road construction. The purchaser will be required to obtain the necessary permits to withdraw water from stream sources in the sale area if that is considered an operational necessity during the preoperational meeting or timber sale administration. The quantity of water if required is not anticipated to be significant.

O. Economics

In addition to generating royalties to the state's general fund, the proposed sale will create economic benefits to the Matanuska-Susitna Borough and to other locations in Alaska. The Borough business community will receive direct economic benefits from providing support services for the operators through sales of fuel, food, housing, medical and miscellaneous supplies. The residents of the Borough will receive an indirect benefit through property taxes paid to the Borough by the operator and employees during the course of the timber harvest operation.

The timber sale is expected to benefit the local economy by providing jobs. In addition, it should have a positive impact on statewide employment by generating several thousand man-hours of work directly associated with the harvest, wood processing, and scarification for regeneration operations in these timber sale units.

The increase in production of moose browse by regenerating birch/spruce forests for the future is expected to directly benefit the public within the local area with an increased potential to harvest moose for subsistence. Harvesting these units will also provide increased opportunities for the public to cut personal use firewood, which is often limited by access to within those areas where limited personal use wood cutting is allowed.

As moose browse is regenerated in harvest units and for 10 to 20 years it is anticipated that additional browse created in the harvest units will tend to draw moose away from highways and transportation corridors. Additional browse created away from roads is hoped to help save human lives, lower medical costs due to injury, and reduce costly property damage caused by moose/automobile collisions.

V. MARKET CONDITIONS

To help stabilize the local wood products industry, the DOF has been directed by the Governor and Legislature to make a consistent and sustainable timber supply available for market.

The local market demand for spruce and birch wood products is increasing and expected to increase in the future. The current local market for high value added forest products includes kiln dried lumber for flooring, trim, paneling, novelty wood products, cabinetry, and furniture. Other wood products include rough-cut lumber, cabin logs, firewood for home heating, chips, pellets, etc. Several businesses in the Valley derive their livelihood from log cabin construction, and the lumber demands of a growing population. Currently the highest demand for timber is in the form of fuel wood for local home heating. This is a recent event within the last 2 years. It is not known how this demand will progress in the future. At this time market conditions are still far below our Annual Allowable Cut for the Mat-Su Area.

The export demand for birch logs and lumber recently tapered off for markets in the lower 48, and Asia. No chips have been shipped from Port Mackenzie in more than a year, however the Port remains a viable local deep-water shipping facility to transport wood products and other commodities to foreign and domestic markets. The chip market had a positive impact on the ability of local timber producers to economically access higher quality birch timber to meet demand for local high value added timber manufacturing and raw lumber demands. Low value birch not suited for high value added lumber is currently being more fully utilized as firewood rather than chips at this time. Later this market may re-expand to accommodate chips, wood pellets for home heating, bio-fuel etc. for export.

Better utilization of low value birch previously left in forest stands before the wood chip demand is still currently being harvested for fuel wood and is allowing for improved forest & wildlife stand conditions. Better wood utilization in general helps provide better harvesting and reforestation economics.

VI. ALTERNATIVE ACTIONS

There are four possible alternatives to consider for these proposed sales. A discussion of each of the four alternatives follows:

1. To continue the sales as proposed. This alternative meets the objectives of the Five-Year Schedule of Timber Sales and DNR's constitutional mandate. It also meets the silvicultural objective of improving forest vigor, provides for a value-added end product and creates additional jobs in Alaska due to the combination of road building, logging, and trucking. This alternative also complies with the management objectives of the Willow Sub-Basin Land Use Plan and the Deception Creek Land Use Plan, allowing for better utilization and regeneration of the existing and future birch/spruce forest, and the provision of moose browse in an area away from highways, rail-roads, and other high-use transportation corridors.

2. To further modify the sales by making them smaller or larger. These sales consist of four units. The units are a logical series of settings for typical commercial logging equipment of the region and will provide the purchaser with enough capital return to construct the infrastructure needed to access the units. The size of the typical unit is designed to be large enough to be economically viable for mechanical logging methods. Increasing the unit size would not be adhering to the *SFG*. Decreasing the size of the units would increase logging costs or leave timber that would be more difficult to harvest in the future. These proposed small sales are of an adequate size to cover the costs to reopen the winter roads and cover mobilization costs to operate in the Houston Timber Sale Area under historic conditions. These sales are appropriately balanced to maintain other resource values as well as provide economic benefits to the Mat-Su Valley.

3. Defer the sale of this timber to a later date. Deferring harvest to a later date would fail to meet many of the objectives of the sale program. One of the main objectives is to make State-owned timber consistently available to the timber industry.

4. Not offer this timber for sale. This alternative would result in not meeting any of the objectives outlined for this management action. Utilization of the forest resource would not be achieved. There would be no significant contribution to the State and local economies. This alternative would delay the management objectives planned for the area, would deny making a source of raw materials available to the local wood products industry, and would delay the harvest of dead trees, mature trees, disease infected trees, and trees at risk to insect infestation. Decay in infected and infested mature spruce and birch trees results in loss of economic value. Loss of opportunity to regenerate the new forest or create moose browse would be a set back to the overall objectives of this plan.

VII. ACMP CONSISTENCY ANALYSIS

This area is not within the Matanuska-Susitna Borough's District Coastal Management Plan and therefore a consistency review is not required.

VIII. PRELIMINARY FINDING AND DECISION

The purpose of this decision is to determine if the Department of Natural Resources, Division of Forestry, will make available timber located in of Sections 3, and 10 of T18N, R3W, in the Seward Meridian. After due consideration of all pertinent information and alternatives, the DNR has reached the following **Preliminary Decision: To offer the sale as proposed in Alternative 1**. In addition, the DNR finds that this preliminary decision satisfies the objectives as stated in this document and it is in the best interest of the State to proceed with this action.

Signature on File

_____ _____

Ken Bullman Date
Mat-Su/Southwest Area Forester

Abbreviations

ADFG: Alaska Department of Fish and Game
AAC: Annual Allowable Cut
BMPs: Best Management Practices
DBH: diameter at breast height
DEC: Department of Environmental Conservation
DNR: Department of Natural Resources
DOF: Division of Forestry
DOT/PF: Department of Transportation/Public Facilities
FF: Final Finding (Forest Land Use Plan)
FLUP: Forest Land Use Plan
FRPA: Alaska Forest Resources and Practices Act
FYSTS: Five Year Schedule of Timber Sales
OHMP: Office of Habitat Management and Permitting
PD: Preliminary Decision (Forest Land Use Plan)
SHPO: State Historic Preservation Office
SFG: Susitna Forestry Guidelines

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Links to Planning Documents

Susitna Area Plan:
http://www.dnr.state.ak.us/mlw/planning/areaplans/susitna/index.cfm

Susitna Forestry Guidelines:
http://www.dnr.state.ak.us/mlw/planning/mgtplans/susitna_forestry_guidelines/index.htm

Appeal and Request for Reconsideration Regulations

Note: "Appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign. "Request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned. [11 AAC 02.900, Definitions, below.] This Final Finding has been signed by the commissioner.

TITLE 11. NATURAL RESOURCES.

CHAPTER 02. APPEALS.

11 AAC 02.010. APPLICABILITY AND ELIGIBILITY. (a) This chapter sets out the administrative review procedure available to a person affected by a decision of the department. If a statute or a provision of this title prescribes a different procedure with respect to a particular decision, that procedure must be followed when it conflicts with this chapter.

(b) Unless a statute does not permit an appeal, an applicant is eligible to appeal or request reconsideration of the department's decision on the application. An applicant is eligible to participate in any appeal or request for reconsideration filed by any other eligible party.

(c) If a statute restricts eligibility to appeal or request reconsideration of a decision to those who have provided timely written comment or public hearing testimony on the decision, the department will give notice of that eligibility restriction as part of its public notice announcing the opportunity to comment.

(d) If the department gives public notice and allows a public comment period of at least 30 days on a proposed action, and if no statute requires opportunity for public comment, the department may restrict eligibility to appeal or request reconsideration to those who have provided timely written comment or public hearing testimony on the proposed action by including notice of the restriction as part of its public notice announcing the opportunity to comment.

(e) An eligible person affected by a decision of the department that the commissioner did not sign or cosign may appeal the decision to the commissioner within the period set by 11 AAC 02.040.

(f) An eligible person affected by a decision of the department that the commissioner signed or cosigned may request the commissioner's reconsideration within the period set by 11 AAC 02.040.

(g) A person may not both appeal and request reconsideration of a decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.015. COMBINED DECISIONS. (a) When the department issues a combined decision that is both a final disposal decision under AS 38.05.035(e) and any other decision, including a disposal decision combined with a land use plan decision, or a disposal decision to grant certain applications combined with a decision to deny others, the appeal process set out for a disposal decision in AS 38.05.035(i) - (m) and this chapter applies to the combined decision.

(b) A decision of the department may include a statement that a final consistency determination under AS 46.40 (Alaska Coastal Management Program) has been rendered in conjunction with the decision. A person may not, under this chapter, appeal or request reconsideration of the final consistency determination, including a requirement necessary solely to ensure the activity is consistent with the Alaska coastal management program as approved under AS 46.40. (Eff. 9/19/2001, Register 159)

Authority:	AS 29.65.050	AS 38.04.900	AS 38.05.035	AS 38.09.110
	AS 29.65.120	AS 38.05.020	AS 38.08.110	AS 38.50.160

11 AAC 02.020. FINALITY OF A DECISION FOR PURPOSES OF APPEAL TO COURT. (a) Unless otherwise provided in a statute or a provision of this title, an eligible person must first either appeal or request reconsideration of a decision in accordance with this chapter before appealing a decision to superior court.

(b) The commissioner's decision on appeal is the final administrative order and decision of the department for purposes of appeal to the superior court.

(c) The commissioner may order or deny a request for reconsideration within 30 calendar days after issuance of the decision, as determined under 11 AAC 02.040(c)-(e). If the commissioner takes no action during the 30-day period, the request for reconsideration is considered denied. Denial of a request for reconsideration is the final administrative order and decision of the department for purposes of appeal to the superior court.

(d) If the commissioner timely orders reconsideration of the decision, the commissioner may affirm the decision, issue a new or modified decision, or remand the matter to the director for further proceedings. The commissioner's decision, other than a remand decision, is the final administrative order and decision of the department for purposes of appeal to the superior court. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.030. FILING AN APPEAL OR REQUEST FOR RECONSIDERATION. (a) An appeal or request for reconsideration under this chapter must

(1) be in writing;

(2) be filed by personal service, mail, fax, or electronic mail;

(3) be signed by the appellant or the appellant's attorney, unless filed by electronic mail; an appeal or request for reconsideration filed by electronic mail must state the name of the person appealing or requesting reconsideration and a single point of contact to which any notice or decision concerning the appeal or request for reconsideration is to be sent;

(4) be correctly addressed;

(5) be timely filed in accordance with 11 AAC 02.040;

(6) specify the case reference number used by the department, if any;

(7) specify the decision being appealed or for which reconsideration is being requested;

(8) specify the basis upon which the decision is challenged;

(9) specify any material facts disputed by the appellant;

(10) specify the remedy requested by the appellant;

(11) state the address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed; an appellant may also provide a telephone number where the appellant can be reached during the day or an electronic mail address; an appeal or request for reconsideration filed electronically must state a single address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed;

(12) identify any other affected agreement, contract, lease, permit, or application by case reference number, if any; and

(13) include a request for an oral hearing, if desired; in the appeal or request for reconsideration, the appellant may include a request for any special procedures to be used at the hearing; the appeal or request for reconsideration must describe the factual issues to be considered at the hearing.

(b) At the time an appeal is filed, and up until the deadline set out in 11 AAC 02.040(a) to file the appeal, an appellant may submit additional written material in support of the appeal, including evidence or legal argument.

(c) If public notice announcing a comment period of at least 30 days was given before the decision, an appellant may not submit additional written material after the deadline for filing the appeal, unless the appeal meets the requirement of (a) of this section and includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

(1) comments already received from the appellant and others;

(2) whether the additional material is likely to affect the outcome of the appeal;

(3) whether the additional material could reasonably have been submitted without an extension;

(4) the length of the extension requested;

(5) the potential effect of delay if an extension is granted.

(d) If public notice announcing a comment period of at least 30 days was not given before the decision, an appellant may submit additional written material after the deadline for filing the appeal, if the appeal meets the requirements of (a) of this section and includes a notice of intent to file the additional written material. The

department must receive the additional written material within 20 days after the deadline for filing the appeal, unless the appeal also includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

(1) comments already received from the appellant and others;

(2) whether the additional material is likely to affect the outcome of the appeal;

(3) whether the additional material could reasonably have been submitted without an extension;

(4) the length of the extension requested;

(5) the potential effect of delay if an extension is granted.

(e) At the time a request for reconsideration is filed, and up until the deadline to file a request for reconsideration, an appellant may submit additional written material in support of the request for reconsideration, including evidence or legal argument. No additional written material may be submitted after the deadline for filing the request for reconsideration.

(f) If the decision is one described in 11 AAC 02.060(c), an appellant who believes a stay of the decision is justified may ask for a stay as part of the appeal or request for reconsideration. The appellant must include an argument as to why the public interest requires a stay. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

Editor's note: The address for an appeal or request for reconsideration by personal service and by mail is: Department of Natural Resources, Commissioner's Office, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501-3561. The number for an appeal or request for reconsideration by fax is: 1-907-269-8918. The electronic mailing address for an appeal or request for reconsideration by electronic mail is: dnr_appeals@dnr.state.ak.us

11 AAC 02.040. TIMELY FILING; ISSUANCE OF DECISION. (a) To be timely filed, an appeal or request for reconsideration must be received by the commissioner's office within 20 calendar days after issuance of the decision, as determined under (c) or (d) of this section, unless another period is set by statute, regulation, or existing contract. If the 20th day falls on a day when the department is officially closed, the appeal or request for reconsideration must be filed by the next working day.

(b) An appeal or request for reconsideration will not be accepted if it is not timely filed.

(c) If the appellant is a person to whom the department delivers a decision by personal service or by certified mail, return receipt requested, issuance occurs when the addressee or the addressee's agent signs for the decision. If the addressee or the addressee's agent neglects or refuses to sign for the certified mail, or if the address that the addressee provided to the department is not correct, issuance by certified mail occurs when the decision is deposited in a United States general or branch post office, enclosed in a postage-paid wrapper or envelope, addressed to the person's current address of record with the department, or to the address specified by the appellant under 11 AAC 02.030(a)(11).

(d) If the appellant is a person to whom the department did not deliver a decision by personal service or certified mail, issuance occurs

(1) when the department gives public notice of the decision; or

(2) if no public notice is given, when the decision is signed; however, the department may state in the decision a later date of issuance and the corresponding due date for any appeal or request for reconsideration.

(e) The date of issuance constitutes delivery or mailing for purposes of a reconsideration request under AS 44.37.011(d) or AS 44.62.540(a). (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.050. HEARINGS. (a) The department will, in its discretion, hold a hearing when questions of fact must be resolved.

(b) The hearing procedure will be determined by the department on a case-by-case basis. As provided in 11 AAC 02.030(a)(13), any request for special procedures must be included with the request for a hearing.

(c) In a hearing held under this section

(1) formal rules of evidence need not apply; and

(2) the hearing will be recorded, and may be transcribed at the request and expense of the party requesting the transcript. (Eff. 11/7/90, Register 116)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.09.110	AS 41.17.055	AS 46.17.030
	AS 29.65.050	AS 38.05.020	AS 38.50.160	AS 41.21.020	
	AS 29.65.120	AS 38.08.110	AS 41.15.020	AS 46.15.020	

11 AAC 02.060. STAYS; EXCEPTIONS. (a) Except as provided in (c) and (d) of this section, timely appealing or requesting reconsideration of a decision in accordance with this chapter stays the decision during the commissioner's consideration of the appeal or request for reconsideration. If the commissioner determines that the public interest requires removal of the stay, the commissioner will remove the stay and allow all or part of the decision to take effect on the date set in the decision or a date set by the commissioner.

(b) Repealed 9/19/2001.

(c) Unless otherwise provided, in a statute or a provision of this title, a decision takes effect immediately if it is a decision to

(1) issue a permit, that is revocable at will;

(2) approve surface operations for a disposal that has already occurred or a property right that has already vested; or

(3) administer an issued oil and gas lease or license, or an oil and gas unit agreement.

(d) Timely appealing or requesting reconsideration of a decision described in (c) of this section does not automatically stay the decision. However, the commissioner will impose a stay, on the commissioner's own motion or at the request of an appellant, if the commissioner determines that the public interest requires it.

(e) A decision takes effect immediately if no party is eligible to appeal or request reconsideration and the commissioner waives the commissioner's right to review or reconsider the decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 46.15.020
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.17.030
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	

11 AAC 02.070. WAIVER OF PROCEDURAL VIOLATIONS. The commissioner may, to the extent allowed by applicable law, waive a requirement of this chapter if the public interest or the interests of justice so require. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020
	AS 03.10.020	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 46.15.020
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.17.030

11 AAC 02.080. DEFINITIONS. Repealed. (Eff. 11/7/90, Register 116; repealed 9/19/2001, Register 159)

Editor's note: The subject matter formerly set out at 11 AAC 02.080 has been moved to 11 AAC 02.900.

11 AAC 02.900. DEFINITIONS. In this chapter,

(1) "appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign;

(2) "appellant" means a person who files an appeal or a request for reconsideration.

(3) "commissioner" means the commissioner of natural resources;

(4) "decision" means a written discretionary or factual determination by the department specifying the details of the action to be allowed or taken;

(5) "department" means, depending of the particular context in which the term is used, the Department of Natural Resources, the commissioner, the director of a division within the Department of Natural Resources, or an authorized employee of the Department of Natural Resources;

(6) "request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 44.62.540
	AS 29.65.050	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.15.020
	AS 29.65.120	AS 38.08.110	AS 41.15.020	AS 44.37.011	AS 46.17.030
	AS 38.04.900				

Editor's note: The subject matter of 11 AAC 02.900 was formerly located at 11 AAC 02.080. The history notes for 11 AAC 02.900 does not reflect the history of the earlier section.